DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A5SW
Revision 27
M7 Aerospace
SA26-T
SA26-AT
SA226-T
SA226-AT
SA226-T(B)
SA227-AT
SA227-TT

March 19, 2010

TYPE CERTIFICATE DATA SHEET NO. A5SW

This data sheet which is part of type certificate No. A5SW prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Civil Air Regulations.

Type Certificate Holder — M7 Aerospace LP
10823 N.E. Entrance
San Antonio, Texas 78216

Type Certificate Holder Record — Fairchild Aircraft Incorporated transferred TC A5SW to M7 Aerospace LP on April 29, 2003.

I - Model SA26-T 8 PCLM (Normal Category) Approved July 15, 1966

Engines — 2 United Aircraft of Canada, Ltd. PT6A-20 (Turboprop)

Fuel — AVJET A, A-1, and B, JP-1, JP-4, JP-5 fuels conforming to P&WA Spec. No. 522 (Fuels shall conform to the specifications as listed or to subsequent revisions thereof). *See Note 3(A).*

Oil — UACL PT6 Engine Service Bulletin 1 lists approved brand oils.

Engine limits — Static Sea Level Ratings

	Shaft Horsepower (s.h.p.)	Gas Gen. Speed (r.p.m.)	Prop Shaft Speed (r.p.m.)	Max. Perm. Interstage Turbine Temp. (C°)
Takeoff and Max. continuous	550	38,100*	2200*	750
Starting Transient (2 sec.)				1000
Max. Reverse	500		2090	750

**SEE NOTE 4(A)*

Oil Temps. — BASIC AIRCRAFT: -40°F to 199°F Max. Cont. Max. 210°F for five minutes. INCREASED GROSS WEIGHT ACFT. *(See Note 5)*: -40°F to 210°F Max. Cont.

Propeller and propeller limits — 2 Hartzell HC-B3TN-3/T10173E-11 with three blades each.
Diameter: 90 3/8 inches. No reduction permitted.
Pitch setting at 30 in. station:

Reverse	-11°
Feathered	+87°
Low (Beta Light)	+19°

Airspeed limits — Max. Operating Speed 208

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Revision 27: Correction to Maximum Landing Fuel Weight for SA226-T

I - Model SA26-T 8 PCLM (Normal Category) (cont'd)

Maneuvering (Knots CAS)	162 (Basic Aircraft)	
	Maneuvering	166 (Increased Gross Weight Aircraft - See Note 5).
	Flaps Extended	137
	Landing Gear Extended	137
	Landing Gear Operating	137

	BASIC AIRCRAFT	INCREASED GROSS WEIGHT ACFT. *(See Note 5)*
C.G. range Gear Down	(148.3) to (154.4) at 9300 lbs.	(147.9) to (154.4) at 9800 lbs.
Inches aft of datum	(140.9) to (154.4) at 6300 lbs.	(138.4) to (154.4) at 6688 lbs.
	(141.0) to (154.4) at 6000 lbs.	(138.5) to (154.4) at 6000 lbs.

Straight line variation between points given.
Moment change due to retracting gear:
-2765 in. lbs. (both versions)

NOTE: Landing gear retraction will not move the c.g. beyond approved limits if the airplane is loaded within the gear-down envelope.

Empty weight C.G. range: None

Maximum weight (lbs.) (See Note 5)	BASIC AIRCRAFT	INCREASED GROSS WEIGHT ACFT.
Ramp	9368	9868
Takeoff	9300	9800
Landing	8500	8500
Zero Fuel		8500

(NOTE: Maximum landing fuel not to exceed 180 gal. per side)

Maximum operating altitude: 31,000 feet

No. of seats: Maximum 8 (Crew at +96.8)
See loading instructions for passenger loading.

Maximum baggage: 300 lbs. (+276) 50 lbs. (+297)

Fuel capacity: 388 gal. total (193 gal. usable in each of 2 wing tanks) (+160.0)
See NOTE 1(A) (1) for data on unusable fuel.

Oil capacity: 4.6 gal. total (1.5 gal. usable in each of 2 integral engine tanks)
(+104.1) See NOTE 1(A) (1) for data on unusable oils.

Control surface movements:

Wing flaps			Down	30° ± 1°
Main surface				
Aileron	Up	20° ± 1 1/2°	Down	20° ± 1 1/2°
Elevator	Up	25° ± 1 1/2°	Down	15° ± 1 1/2°
Rudder	Right	25° ± 1 1/2°	Left	25° ± 1 1/2°
Tabs (Main Surface in Neutral)				
Aileron L/H	Up	7 1/2° ± 1 1/2°	Down	7 1/2° ± 1 1/2°
Elevator	Up	10° ± 1 1/2°	Down	21° ± 1 1/2° Down
Rudder	Right	25° ± 1 1/2°	Left	25° ± 1 1/2°
Tab Anti-Servo (Main Surface in Extreme Position)				
		+ 2°		+ 2°
Aileron R/H	Up	14°	Down	8°
		- 1°		- 0°

Serial Nos. eligible: T26-2 thru T26-99 *(See NOTE 5)*

II - Model SA26-AT 8 PCLM (Normal Category) Approved June 12, 1968

Engines: 2 AiResearch TPE 331-1-151G (Turboprop)

Fuel: AVJET A, A-1, and B, JP-1, JP-4, JP-5 fuels conforming to AiResearch Spec. No. SC5802B. (Fuels shall conform to the specification as listed or to subsequent revisions thereof). See NOTE 3(B).

Oil: MIL-L-7808 or MIL-L-23699 conforming to AiResearch Spec. No. SC5802B. (Oil shall conform to the specification as listed or to subsequent revisions thereof.)

Engine limits — Static Sea Level Ratings

	Shaft Horsepower (s.h.p.)	Gas Gen. Speed (r.p.m.)	Prop Shaft Speed (r.p.m.)	Max. Perm. Interstage Turbine Temp. (C°)
Takeoff (5 min.)	665	41730*	2000*	1004
Max. continuous	665	41730*	2000*	972
Starting limit (below 50%)				788

**SEE NOTE 4(B)*

Oil Temps.: Minus 40° to 93° max. continuous

Propeller and propeller limits: 2 Hartzell HC-B3TN-5( )/T10178BH-13R with three blades each.
Diameter: 88 3/8 inches. No reduction permitted.
Pitch setting at 30 in. station:

Start locks	+ 2.5° ± 1°
Flight idle	+10.5° ± 1°
Feathered	+87.0° ± 1°
Reverse	- 10.0° ± 1°

Airspeed limits (Knots CAS)

Max. Operating Speed	208
Maneuvering	162
Flaps Extended	137
Landing Gear Extended	137
Landing Gear Operating	137

C.G. range
Gear Down
Inches aft of datum
(148.3) to (154.4) at 10,000 lbs.
(138.4) to (154.4) at 7,000 lbs.
(138.5) to (154.4) at 6000 lbs.
Straight line variation between points given.
Moment change due to retracting gear: -2765 in. lbs.
NOTE: Landing gear retraction will not move the c.g. beyond approved limits if the airplane is loaded within the gear-down envelope.

Empty weight C.G. range: None

Maximum weight (lbs.)

Ramp	10062
Takeoff	10000
Landing	9300*
Zero Fuel	8500

(NOTE: Maximum landing fuel not to exceed 180 gal. per side)

Maximum operating altitude: 31,000 feet

II - Model SA26-AT 8 PCLM (Normal Category) (cont'd)

No. of seats	Maximum 8 (Crew at +96.8) See loading instructions for passenger loading.					
Maximum baggage	300 lbs. (+276) 50 lbs. (+297)					
Fuel capacity	388 gal. total (193 gal. usable in each of 2 wing tanks) (+160.0) See NOTE 1(A) (2) for data on unusable fuel.					
Oil capacity	12.5 quarts total (5.25 quarts usable in each engine oil tank) (+72.5) See NOTE 1(A) (2) for data on unusable oils.					
Control surface movements	Wing flaps			Down	30° ± 1°	
	Main surface					
	Aileron	Up	20° ± 1.5°	Down	20° ± 1.5°	
	Elevator	Up	25° ± 1.5°	Down	15° ± 1.5°	
	Rudder	Right	25° ± 1.5°	Left	25° ± 1.5°	
	Tabs (Main Surface in Neutral)					
	Aileron L/H	Up	15.5° ± 1.5°	Down	14° ± 1.5°	
	R/H	None				
	Elevator	Up	10° ± 1.5°	Down	21° ± 1.5°	Down
	Rudder	Right	25° ± 1.5°	Left	25° ± 1.5°	
	Tab Servo (Main Surface in Extreme Position)					
	Aileron L/H	Up	0° ± 2°			
	Aileron R/H	Up	9.5° ± 1.5°	Down	9.5° ± 1.5°	
Serial Nos. eligible	T26-100 and up. T26-140E and up.					

III - Model SA226-T 11 PCLM (Normal Category) Approved July 27, 1970

Engines	2 AiResearch TPE 331-3U-303G Turboprop (P/N 894040) or -304G Turboprop (P/N 3102550)
Fuel	AVJET A, A-1, and B, JP-1, JP-4, JP-5 fuels conforming to AiResearch Report No. PE-5064-R (Fuels shall conform to the specification as listed or to subsequent revisions thereof). See Note 3(B).
Oil	MIL-L-23699A conforming to AiResearch Report No. PE-5065-R. (Oil shall conform to the specification as listed or to subsequent revisions thereof.)

Engine limits — Static Sea Level Ratings

	Shaft Horsepower (s.h.p.)	Gas Gen. Speed (r.p.m.)	Prop Shaft Speed (r.p.m.)	Max. Perm. Interstage Turbine Temp. (C°)
Takeoff	840	41730*	2000*	923
Max.continuous	840	41730*	2000*	923
Starting limit (1 sec.) (Below 50%)	-	-	-	1149

**SEE NOTE 4(B)*

Oil Temps.	Minus 40°C to 127°C ground idle Minus 40°C to 110°C all other operations

III - Model SA226-T 11 PCLM (Normal Category) (cont'd)

Propeller and propeller limits	2 Hartzell HC-B3TN-5( )/T1028HDB-4R or T10282DB-4R. Diameter: 98 inches. No reduction permitted. Pitch setting at 30 in. station: Start locks + 2.0° Flight idle +13.5° Feathered +89.0° Reverse - 6.0°
Airspeed limits (Knots CAS)	Max. Operating Speed 265 (Up to 26,000 feet). Reduce max. operating speed 6 knots per 1,000 feet altitude from 26,000 feet to 31,000 feet. Maneuvering 194 Flaps Full Extended 153 1/2 Extended 180 1/4 Extended 215 Landing Gear Extended 176 Landing Gear Operating 176 Landing Lights Extended 150
C.G. range Gear down Inches aft of datum	162.3 (20.0% MAC) to 168.4 (28.0% MAC) at 12,500 lbs. 155.4 (11.0% MAC) to 168.4 (28.0% MAC) at 7,500 lbs. or less. Gear retraction moment: -14,545 in. lbs. *NOTE: Landing gear retraction will not move the c.g. beyond approved limits if the airplane is loaded within the gear-down envelope.*
Empty weight C.G. range	None
Maximum weight (lbs.)	Ramp 12560 Takeoff 12500 Landing 11500* Zero Fuel 10000 *(NOTE: Maximum landing fuel not to exceed 1740 pounds per side)*
Maximum operating altitude	31,000 feet
No. of seats	Maximum 11 (Crew at +111.0) See loading instructions for passenger loading.
Maximum baggage and/or equipment	Rear compartment: 300 lbs. (+324) Nose compartment: 600 lbs. (400 lbs. with batteries in nose) (+46.7)
Fuel capacity Oil capacity	652 gal. total (324 gal. usable in each of 2 wing tanks) (+179) 16.5 quarts total (5 quarts usable in each engine tank) (+179). *See NOTE 1(A) (3) for data on unusable fuel and oil.*
Control surface movements	Wing flaps Down 36° ± 1° Main surface Aileron Up 18.5° ± 1° Down 21.5° ± 1° Elevator Up 30° ± 1° Down 15° ± 1° Rudder Right 25° ± 1° Left 25° ± 1° Stabilizer (mechanical stops) Up 2.10° ± .20° L.E. Down 8.20° ± .20° L.E. (electrical stops) Up 1.85° ± .15° L.E. Down 7.95° ± .15° L.E Tabs (Main Surface in Neutral) Aileron Up 20° ± 2° Down 20° ± 2° 1° 1° Rudder Right 25° ± 1 1/2° Left 25° ± 1 1/2°
Serial Nos. eligible	T-201 through T-275, T-277 through T-291; T-205E, T-215E

IV - Model SA226-AT 21 PCLM, Normal Category Approved September 22, 1970, Restricted Category Approved 10 February 1978 (See Note 8)

Engines: 2 AiResearch TPE 331-3U-303G Turboprop (P/N 894040) or -304G Turboprop (P/N 3102550) or TPE 331-3UW-303G Turboprop (P/N 895880)

Fuel: AVJET A, A-1, and B, JP-1, JP-4, JP-5 fuels conforming to AiResearch Report No. PE-5064-R (Fuels shall conform to the specification as listed or to subsequent revisions thereof). See Note 3(B).

Oil: MIL-L-23699A conforming to AiResearch Report No. PE-5065-R. (Oil shall conform to the specification as listed or to subsequent revisions thereof.)

Engine limits — Static Sea Level Ratings

	Shaft Horsepower (s.h.p.)	Gas Gen. Speed (r.p.m.)	Prop Shaft Speed (r.p.m.)	Max. Perm. Interstage Turbine Temp. (C°)
Takeoff	840	41730	2000	923
*Takeoff (45 sec.) wet	940	41730	2000	944
Max.continuous	840	41730	2000	923
Starting limit (1 sec.) (Below 50%)	-	-	-	1149

**For aircraft equipped with water-injection system.*

Oil Temps.: Minus 40°C to 127°C ground idle
Minus 40°C to 110°C all other operations

Propeller and propeller limits: 2 Hartzell HC-B3TN-5( )/T10282HB or T10282B.
Diameter: 102 inches. No reduction permitted.
Pitch setting at 30 in. station:

Start locks	+ 2.0°
Flight idle	+13.0°
Feathered	+89.0°
Reverse	- 6.0°

Airspeed limits (knots CAS)

	Category	
	Normal	Restricted
Max. Operating Speed	248	238
Decrease maximum operating speed 5 knots per 1,000 feet above:	17000 ft.	19000 ft.
Maneuvering	194	152
Flaps Full Extended	153	153
1/2 Extended	180	180
1/4 Extended	215	215
Landing Gear Extended	176	176
Landing Gear Operating	176	176
Landing Lights Extended	150	150

C.G. range: 260.1 (13.7% MAC) to 277.1 (36% MAC) at 14,000 lbs.*
Gear Down: 258.5 (11.6% MAC) to 277.1 (36% MAC) at 12,500 lbs.
Inches aft of datum: 254.4 (6.2% MAC) to 277.1 (36% MAC) at 8,500 lbs. or less.
254.9 (6.9% MAC) to 277.1 936% MAC at 6,500 lbs.
Straight line variation between points given.
Gear retraction moment - 14545 in. lbs.

NOTE: Gear retraction will not move the c.g. beyond approved limits if the airplane is loaded within the gear-down envelope.

IV - Model SA226-AT 21 PCLM (cont'd)

Empty weight C.G. range: None

Maximum weight (lbs.)

	Category	
	Normal	Restricted
Ramp	12560	14100*
Takeoff	12500	14000*
Landing	12500*	12500**

**May be operated at 14,000 lbs. maximum takeoff weight in Restricted Category after complying with Note 8.*

***Maximum landing fuel not to exceed 1740 pounds per side.*

Maximum operating altitude: 31,000 feet

No. of seats: Maximum 21 (Crew at +111.0)
See loading instructions for passenger loading.

Maximum baggage and/or equipment: Rear compartment: 600 lbs. (+473.4)
Nose compartment: 800 lbs. (600 lbs. with nose AWI tank) (+46.7)
Local loading in cargo floor: 150 lbs/sq. ft.

Fuel capacity: 652 gal. total (324 gal. usable in each of 2 wing tanks) (+281.4) or
558 gallons total (277 gal. usable in each of 2 wing tanks (+282.0)
See NOTE 1(A) (4) for data on unusable fuel.

Oil capacity: 16.5 quarts total (5 quarts usable in each engine tank) (+205)
See NOTE 6. See NOTE 1(A) (4) for data on unusable oill.

Control surface movements

Wing flaps			Down	36° ± 1°
Main surface				
Aileron	Up	18.5° ± 1°	Down	21.5° ± 1°
Elevator	Up	30° ± 1°	Down	15° ± 1°
Rudder	Right	19° ± 1°	Left	19° ± 1°
Stabilizer (mechanical stops)				
	Up	2.40° ± .20° L.E.	Down	7.80° ± .20° L.E.
(electrical stops)				
	Up	2.15° ± .15° L.E.	Down	7.55° ± .15° L.E
Tabs (Main Surface in Neutral)				
Aileron	Up	20° ± 2° 1°	Down	20° ± 2° 1°
Rudder	Right	25° ± 1 1/2°	Left	25° ± 1 1/2°

Serial Nos. eligible: AT-001 through AT-419, AT-003E, AT-038E, AT-062E, AT-064E

V - Model SA226-T(B) 11 PCLM (Normal Category) Approved November 3, 1978, (Restricted Category) Approved July 29, 1980

(See Note 9 for Restricted Category Operation at 14,000 lbs. gross weight)

Engines: 2 AiResearch TPE 331-10U-501G Turboprop (P/N 3102050-2) or TPE 331-10U-502G (P/N 3102050-3) or TPE 331-10U-511G (P/N 3102050-4) or TPE 331-10U-512G (P/N 3102050-5)

Fuel: AVJET A, A-1, and B, JP-1, JP-4, JP-5 fuels conforming to AiResearch Report No. PE-5064-R (Fuels shall conform to the specification as listed or to subsequent revisions thereof). See Note 3(B).

Oil: MIL-L-23699A conforming to AiResearch Report No. PE-5065-R. (Oil shall conform to the specification as listed or to subsequent revisions thereof.)

V - Model SA226-T(B) 11 PCLM (cont'd)

Engine limits

Static Sea Level Ratings

	Shaft Horsepower (s.h.p.)	Gas Gen. Speed (r.p.m.)	Prop Shaft Speed (r.p.m.)	Max. Perm. Interstage Turbine Temp. (C°)
Takeoff	900	41730*	1591*	650
Max.continuous	900	41730*	1591*	650
Starting limit (1 sec.) (Below 65%)	-	-	-	770

**See Note 4(D).*

Oil Temps.

Minus 40°C to 127°C ground idle
Minus 40°C to 110°C all other operations

Propeller and propeller limits

2 Hartzell HC-B4TN-5EL or HC-B4TN-5HL
Hubs and LT10282AB+2.5 (TL10282AB+2.5) blades
Diameter: 106 inches. No reduction permitted.
Pitch setting at 30 in. station:

Start locks	+ 2.0°	
Flight idle	+13.0°	
Feathered	+89.5°	
Reverse	- 2.0°	(TPE - 1OU-501G engine)
	- 6.0°	(TPE - 1OU-502G engine)

Airspeed limits (knots CAS)

	Category Normal	Restricted
Max. Operating Speed	265	265
(Up to 24,000 feet) Reduce maximum operating speed. 5 knots per 1,000 feet altitude from 24,000 feet to 31,000 feet.		
Maneuvering	194	180
Flaps Full Extended	153	153
1/2 Extended	180	180
1/4 Extended	215	215
Landing Gear Extended	176	176
Landing Gear Operating	176	176
Landing Lights Extended	150	150

C.G. range
Gear Down
Inches aft of datum

165.6 (24.4% MAC) to 168.4 (28% MAC) at 14,000 lbs. (Restricted category only)
163.4 (21.5% MAC) to 168.4 (28% MAC) at 12,500 lbs.
160.9 (18.2% MAC) to 168.4 (28% MAC) at 11,500 lbs. or less.
155.4 (11% MAC) to 168.4 (28% MAC at 7,500 lbs.
Gear retraction moment - 14,545 in. lbs.
NOTE: Landing gear retraction will not move the c.g. beyond approved limits if the airplane is loaded within the gear-down envelope.

Empty weight C.G. range

None

Maximum weight (lbs.)

	Category Normal	Restricted
Ramp	12600	14100
Takeoff	12500	14000
Landing	12500*	12500*
Zero fuel	10500	12500

**Maximum landing fuel not to exceed 1740 pounds per side.*

Maximum operating altitude

31,000 feet

V - Model SA226-T(B) 11 PCLM (cont'd)

No. of seats	Maximum 11 (Crew at +111.0) See loading instructions for passenger loading.
Maximum baggage and/or equipment	Rear compartment: 300 lbs. (+283) 50 lbs. (+315) Nose compartment: 600 lbs. (+46.7)
Fuel capacity	652 gal. total (324 gal. usable in each of 2 wing tanks) (+179). *See NOTE 1(A)(3) for data on unusable fuel.*
Oil capacity	13.7 quarts total (3.6 quarts usable in each engine oil tank) (+120) *See NOTE 1(A)(3) for data on unusable oil..*

Control surface movements

Wing flaps			Down	36° ± 1°
Main surface				
Aileron	Up	18.5° ± 1°	Down	21.5° ± 1°
Elevator	Up	30° ± 1°	Down	15° ± 1°
Rudder	Right	25° ± 1°	Left	25° ± 1°
Stabilizer (mechanical stops)				
	Up	2.10° ± .20° L.E.	Down	8.20° ± .20° L.E.
(electrical stops)				
	Up	1.85° ± .15° L.E.	Down	7.95° ± .15° L.E
Tabs (Main Surface in Neutral)				
Aileron	Up	20° ± 2°	Down	20° ± 2°
		1°		1°
Rudder	Right	25° ± 1 1/2°	Left	25° ± 1 1/2°

Serial Nos. eligible: T-276, T-292 through T-417, and T-303E.

VI - Model SA227-AT 16 PCLM, Normal Category, SFAR 41, Approved May 8, 1981.

Engines: 2 AiResearch TPE331-11U-601G (P/N 3102540-1) or -611G (P/N 3102540-3)

Fuel

Aviation turbine fuels	AiResearch Specification
Type A	EMS53111
Type A-1	EMS53112
Class A-JP4 and Class B-Type B	EMS53113
Type JP-5	EMS53116

(Fuels shall conform to the specification as listed or to subsequent revisions thereon).
See Note 3(B).

Oil: MIL-L-23699B conforming to AiResearch Manufacturing Company Specification EMS53110 Type II.

Engine limits — Static Sea Level Ratings

	Shaft Horsepower (s.h.p.)	Gas Gen. Speed (r.p.m.)	Prop Shaft Speed (r.p.m.)	Exhaust Gas Temp (EGT) (Single red line) (C°)
Takeoff (5 min.) Dry	1000	41730*	1591*	650
Takeoff (5 min.) Wet	1100	41730*	1591*	650
Max.continuous	1000	41730*	1591*	650
Starting limit (1 sec.)	-	-	-	770

**See Note 4(E).*

Oil Temps.: Minus 40°C to 110°C (normal operations)
Minus 40°C to 127°C (ground operations only)

VI - Model SA227-AT 16 PCLM (cont'd)

Propeller and propeller limits

2 Dowty Rotol (C) R321/4-82-F/8
Diameter 106 inches.
Pitch at J-J* station.

Start Locks	-30' ± 1°
Flight Idle	7° ± 30'
Feathered	84° 46' ± 20'
Reverse	-13° 30' ± 1°

**See Note 10 for the location of the J-J station*

2 McCauley 4HFR34C652()()-L106LA-O
Diameter 106 inches.
Pitch at 30 inch station.

Start Locks	6.0° ± 0.5°
Flight Idle	15.0° ± 0.5°
Feathered	88.5° ± 0.5°
Reverse	-5.0° ± 0.5°

Airspeed limits (Knots CAS)

	Basic	Increased GW (See Note 13)	Optional Increase GW (See Note 17)
Max. Operating Speed	248	248	248
Decrease maximum operating speed 5 knots per 1,000 ft. above 17,000 feet.			
Maneuvering	174	176	186
Flaps Full Extended	156	159	166
1/2 Extended	180	180	180
1/4 Extended	215	215	215
Landing Gear Extended	176	176	176
Landing Gear Operating	176	176	176

C.G. range
262.3 (15.72% MAC) to 277.0 (36% MAC) at 16,000 lbs. (See Note 17).

Gear Down
260.7 (13.50% MAC) to 277.0 (36% MAC) at 14,500 lbs. (See Note 13).
260.0 (12.54% MAC) to 277.0 (36% MAC) at 14,000 lbs.
258.5 (10.47% MAC) to 277.0 (36% MAC) at 12,500 lbs. (See Note 11).
257.0 (8.4% MAC) to 277.0 (36% MAC) at 11,000 lbs.

Inches aft of datum
257.0 (8.4% MAC) to 277.0 (36% MAC) at 8,225 lbs.
Straight line variation between points given.
Gear retraction moment: -14,545 in. lbs.
NOTE: Gear retraction will not move the c.g. beyond approved limits if the airplane is loaded within the gear-down envelope.

Empty weight C.G. range
None

Maximum weight (lbs.)

	Category			
	Normal (with SFAR 41)	Normal (without SFAR 41) *(See NOTE 11)*	Normal (Increased GW with SFAR 41) *(See NOTE 13)*	Normal Optional Increased GW with SFAR 41 *(See NOTE 17)*
Ramp	14,100	12,600	14,600	16,100
Take-off	14,000	12,500	14,500	16,000
Landing	14,000	12,500	14,000	15,500
Max. Zero Fuel	13,130	13,130	13,130	13,900

Maximum operating altitude
31,000 feet

No. of seats
Maximum 16 (Crew at +111.0)
See AFM Loading instructions for passenger loading.

Maximum baggage and/or equipment
Rear Compartment: 850 lbs. 1(+473.4)
Nose Compartment: 800 lbs. (600 lbs. with nose CAWI tanks installed) (+46.7)
Local loading on cargo floor: 150 lbs./sq.ft.

VI - Model SA227-AT 16 PCLM (cont'd)

Fuel capacity	652 gal. total (324 gal. usable in each of 2 wing tanks (+281.4)).				
Oil capacity	14.1 quarts total (3.8 quarts usable in each engine oil tank (+205.0)) *See Note 1(A)(5) for data on unusable fuel and oil.*				
Control surface	Wing flaps			Down	36° ± 1°
	Main surface				
	Aileron	Up	18.5° ± 1°	Down	21.5° ± 1°
	Elevator	Up	30° ± 1°	Down	15° ± 1°
	Rudder	Right	25° ± 1°	Left	25° ± 1°
	Stabilizer				
	(Mechanical Stops)	Up	2.40° ± .20°L.E.	Down	7.80° ± .20° L.E.
	(Electrical Stops)	Up	2.15° ± .15°L.E.	Up	7.55° ± .15° L.E.
	Tabs (Main Surface in Neutral)				
	Aileron		20° + 2°		20° + 2°
		Up	- 1°	Down	- 1°
	Rudder	Right	25° ± 1.5°	Left	25° ± 1.5°
Serial Nos. eligible	AT423 through AT506 *(See Note 11 and 13.)*				
	AT511 and Up *(See Note 11 and 13.)*				

VII - Model SA227-TT, 10 or 11 PCLM, Normal Category, Approved May 18, 1981.

Engines: 2 AiResearch TPE331-10U-503G (P/N 3102940-1) or -513G (P/N 3102940-2)

Fuel:

Aviation turbine fuels	AiResearch Specification
Type A	EMS53111
Type A-1	EMS53112
Class A-JP4 and Class B-Type B	EMS53113
Type JP-5	EMS53116

(Fuels shall conform to the specification as listed or to subsequent revisions thereon). *See Note 3(B))*

Oil: MIL-L-23699B conforming to AiResearch Manufacturing Company Specification EMS53110 Type II.

Engine limits — Static Sea Level Ratings

	Shaft Horsepower (s.h.p.)	Gas Gen. Speed (r.p.m.)	Prop Shaft Speed (r.p.m.)	Max. Perm. Interstage Turbine Temp. (C°)
Takeoff	900	41730*	1591*	650
Max.continuous	900	41730*	1591*	650
Starting limit (1 sec.)	-	-	-	770

**See Note 4(D).*

Oil Temps.: Minus 40°C to 110°C (normal operations)
Minus 40°C to 127°C (ground operations only)

Propeller and propeller limits: 2 Dowty Rotol (C) R324/4-82-F/9
Diameter: 106 inches.
Pitch at J-J* station.

Start Locks	- 30' ± 1°
Flight Idle	7° 30' ± 30'
Feathered	84° ± 30'
Reverse	-13° 30' ± 1°

**See Note 10 for the location of the J-J station*

VII - Model SA227-TT, 10 or 11 PCLM (cont'd)

Airspeed limits (Knots CAS)

Max. Operating Speed	265 (up to 24,300 feet)
Decrease maximum operating speed 5 knots per 1,000 feet from 24,000 feet to 31,000 feet	
Maneuvering	189
Flaps Full Extended	164
1/2 Extended	180
1/4 Extended	215
Landing Gear Extended	176
Landing Gear Operating	176
Landing Lights Extended	150

C.G. range
163.3 (21.3% MAC) to 168.4 (28.0% MAC) at 13,230 lbs.

Gear Down *(See Note 19.)*
162.3 (20.0% MAC) to 168.4 (28.0% MAC) at 12,500 lbs. (See Note 11.)
157.9 (14.3% MAC) to 168.4 (28.0% MAC) at and below 9,314 lbs.

Inches aft of datum
156.9 (13.0% MAC) to 168.4 (28.0% MAC) at 8,590 lbs.
Straight line variation between points given. Gear retraction moment: 14,545 in. lbs.
NOTE: Gear retraction will not move the c.g. beyond approved limits if the airplane is loaded within the gear-down envelope.

Empty weight C.G. range
None

Maximum weight (lbs.)

	Category Normal (with SFAR 41)	Normal (without SFAR 41)
Ramp	13,330	12,600 *(See Note 11.)*
Take-off	13,230	12,500 *(See Note 11.)*
Landing	13,230	12,500 *(See Note 11.)*
Max. Zero Fuel	12,500	13,130 *(See Note 11.)*

Maximum operating altitude
31,000 feet

No. of seats
Maximum 10 with SFAR 41, 11 without SFAR 41 (Crew at +111.0)
See AFM/POH loading instructions for passenger loading.

Maximum baggage and/or equipment
Rear Compartment: 300 lbs. (+324)
Nose Compartment: 600 lbs. (+46.7)

Fuel capacity
652 gal. total (324 gal. usable in each of 2 wing tanks (+179)). See Note 1(A)(3) for data on unusable fuel.

Oil capacity
14.1 quarts total (3.8 quarts usable in each engine oil tank (+205.0)).
See Note 1(A)(3) for data on unusable oil.

Control surface

Wing flaps			Down	36° ± 1°
Main surface				
Aileron	Up	18.5° ± 1°	Down	21.5° ± 1°
Elevator	Up	30° ± 1°	Down	15° ± 1°
Rudder	Right	25° ± 1°	Left	25° ± 1°
Stabilizer				
(Mechanical Stops)	Up	2.10° ± .20°L.E.	Down	8.20° ± .20° L.E.
	Up	2.00° ± .2° L.E.	Down	8.60° ± .2° L.E. *(See Note 19)*
(Electrical Stops) (to be set .2± .05 before mechanical stops (See Note 19)				
	Up	1.85° ± .15°L.E.	Down	7.95° ± .15° L.E.
Tabs (Main Surface in Neutral)				
Aileron		20° + 2°		20° + 2°
	Up	- 1°	Down	- 1°
Rudder	Right	25° ± 1.5°	Left	25° ± 1.5°

Serial Nos. eligible
TT421 and Up. *(See Note 11.)*

DATA PERTINENT TO ALL MODELS

Datum	Models SA26-T and SA26-AT: 153.44 inches forward of wing main (forward) spar centerline. Model SA226-T, SA226-T(B), and SA227-TT: 171.44 inches forward of wing main (forward) spar centerline. Model SA226-AT and SA227-AT: 274.1 inches forward of wing main (forward) spar centerline.
Leveling means	Models SA26-T and SA26-AT: Passenger seat tracks. Models SA226-T, SA226-T(B), SA226-AT, SA227-AT, and SA227-TT: Lateral : Nose baggage compartment door sill. Longitudinal : Nose baggage compartment floor.
Certification basis - SA26-T:	CAR 3, effective May 15, 1956, through Amendments 3-8, and Special Conditions outlined in FAA letters dated April 15, 1965; November 19, 1965; and May 16, 1966. Applied for Type Certificate January 23, 1964. No exemptions.
SA26-AT:	CAR 3, effective May 15, 1956, through Amendments 3-8, and Special Conditions outlined in FAA letters dated November 19, 1965, August 22, 1967; February 5, 1968; and April 4, 1968. No exemptions.
SA226-T:	CAR 3, effective May 15, 1956, through Amendments 3-8, and Special Conditions outlined in FAA letters dated November 19, 1965; August 22, 1967; February 5, 1968; and April 4, 1968; SFAR 23.27 and Exemption No. 961, dated March 14, 1969.
SA226-AT:	CAR 3, effective May 15, 1956, through Amendments 3-8, and Special Conditions outlined in FAA letters dated November 19, 1965; August 22, 1967; February 5, 1968; and April 4, 1968; and FAR 23.511 of Amendment 23-7; and FAR 36 Appendix F, through Amendments 36-6. No exemptions.
SA226-T(B): (See Note 15.)	CAR 3, effective May 15, 1956, through Amendments 3-8, and Special Conditions outlined in FAA letters dated November 19, 1965; August 22, 1967; February 5, 1968; and April 4, 1968; SFAR 23.27, FAR 23.903(b) of Amendment 23-17 effective February 1, 1977; and FAR 36 Appendix F, through Amendments 36-6. No exemptions.
SA227-AT: (See Note 11.) (See Note 12.) (See Note 16.)	CAR 3, effective May 15, 1956, through Amendments 3-8, and Special Conditions outlined in FAA letters dated November 19, 1965; August 22, 1967; February 5, 1968; and April 4, 1968; FAR 23.511 of Amendment 23-7 and FAR 23.175(d) of Amendment 23-14; Amendment C of SFAR 41 including paragraph 4(c) and the compartment interior requirements of 25.853(a), (b), (b-1), (b-2), and (b-3) in effect on September 26, 1978; and FAR 36 Appendix F, through Amendments 36-6. No exemptions. Equivalent safety has been established for FAR 23.807(a)(3), Crew Emergency Exit, specified in SFAR 41.5(e), Doors and Exits.

SA227-TT (See Note 11.) (See Note 12.) (See Note 16.)	CAR 3, effective May 15, 1956, through Amendments 3-8, and Special Conditions outlined in FAA letters dated November 19, 1965; August 22, 1967; February 5, 1968; and April 4, 1968; SFAR 23.27; FAR 23.903(b) of Amendment 23-17 effective February 1, 1977; Amendment B of SFAR 41 including paragraph 4(b) and the compartment interior requirements of 25.853(a), (b), (b-1), (b-2), and (b-3) in effect on September 26, 1978; and FAR 36, Appendix F through Amendments 36-6. No exemptions. Equivalent safety has been established for FAR 23.807(a)(3), Crew Emergency Exit, specified in SFAR 41.5(e), Doors and Exits.
Production basis	Production Certificate No. 3SW expiered October 4, 1990. Current Certificate No. 6SW (spares only).
Equipment	The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification. The following reports and drawings are the 'master equipment list' for each of the models noted. These reports and drawings contain required equipment as well as optional installations approved by the FAA.

Model SA26-T	Swearingen Report 2601-R46
Model SA26-AT	Swearingen Report 2601-R128
Model SA226-T	Swearingen Dwg. 27-10011
Model SA226-AT	Swearingen Dwg. 27-10012
Model SA226-T(B)	Swearingen Dwg. 27-10018
Model SA227-AT	Swearingen Dwg. 27-10028
Model SA227-TT	Swearingen Dwg. 27-10034

NOTE 1 (A) Current weight and balance report together with list of equipment included in certificated empty weight, and loading instructions when necessary, must be provided for each aircraft at the time of original certification. Empty weight and corresponding center of gravity location must include:

(1) Model SA26-T	:	Unusable fuel	13 lbs. (+170)
		Unusable oil	12 lbs. (+104.1)
(2) Model SA26-AT	:	Unusable fuel	13 lbs. (+170)
		Unusable oil	4 lbs. (+72.5)
(3) Model SA226-T, SA226-T(B), and SA227-TT	:	Unusable fuel	27 lbs. (+179)
		Unusable oil	12 lbs. (+102)
(4) Model SA226-AT	:	Unusable fuel	27 lbs. (+282)
		Unusable oil	12 lbs. (205)
(5) Model SA227-AT	:	Unusable fuel	30 lbs. (+282)
		Unusable oil	12 lbs. (+205)

(B) The airplane must be loaded so that the C.G. is within the specified limits at all times.

NOTE 2 All placards required in the approved AFM must be installed in the appropriate locations.

The following operating limitations placard should be installed:

Model SA26-T: Approved types of operation: Day/Night, VFR/IFR and icing conditions when modified in accordance with Swearingen Service Letter 30-00-010. See AFM for required equipment list.

Model SA26-AT: Approved types of operation:
Day/Night, VFR/IFR and icing conditions. See AFM for required equipment list.

Models SA226-T and SA226-T(B): Approved types of operation: Day/Night, VFR/IFR and icing conditions when modified in accordance with Swearingen Service Bulletin 30-00- 3006. See AFM for required equipment list.

Models SA226-AT: Approved types of operation: Day/Night, VFR/IFR and icing conditions when modified in accordance with Swearingen Service Bulletin 30-00-4005. See AFM for required equipment list.

NOTE 3 (A) Model SA26-T:

Emergency use of MIL-G-5572 grades 80/87, 91/96, 110/115 and 115/145 aviation gasolines are permitted on an emergency basis not to exceed 150 hours during any overhaul period. It is not necessary to purge the unused fuel from the system when switching fuel types. Phillips PFA-55MB anti-icing additive at a concentration not in excess of 0.15% by volume is approved for use in fuel for this aircraft. No fuel system anti-icing credit is allowed.

(B) Model SA26-AT, SA226-T, SA226-AT, SA226-T(B), and SA227-AT:

Emergency use of MIL-G-5572D grade 80/87 only aviation gasoline permitted not to exceed 1000 gallons per engine for each 100 hours of engine operation. Emergency use of MIL-G-5572D, Grade 100/130 (low lead), aviation gasoline permitted not to exceed 250 gallons per engine for each 100 hours of engine operation, with the total use limited to 7,000 gallons during any 3,000-hour period. Jet fuel and aviation gasoline may be mixed in any proportion. If 25 percent or more aviation gasoline is used, 1 quart of aviation grade oil must be added to provided fuel pump lubrication. Engine log book entry required. Fuel System Icing Inhibitor MIL-I-27686E fuel additive approved not to exceed 0.15 percent by volume. No fuel system anti-icing credit is allowed.

NOTE 4 (A) Model SA26-T:
The maximum propeller shaft overspeed limit is 110% at all ratings and may be employed for sustained periods in emergencies. 100% propeller shaft speed is defined as 2200 RPM. Gas generator speeds up to 102.7% are permissible for 10 seconds and to 101.6% for unlimited periods subject to applicable temperatures and other limits. 100% gas generator RPM is defined as 37,000 RPM.

(B) Models SA26-AT and SA226-T:
The maximum propeller shaft overspeed limit is 105% (2100 RPM) for 5 seconds and 101% (2020 RPM) for 5 minutes. 100% is defined as 2000 RPM.

(C) Model SA226-AT:
The maximum allowable propeller shaft speed is 2100 RPM (105%) for a transient period not to exceed 5 seconds and 2020 RPM (101%) for 5 minutes. Normal propeller shaft speed is 2000 RPM (100%). Dry static takeoff SHP is not to exceed 840 SHP (2206 ft. lbs. torque max.) but may increase to 900 SHP (2363 ft. lbs. torque max.) due to ram for a period not to exceed 5 minutes. For aircraft equipped with water injection system, see AFM supplement for operation and limitations.

(D) Model SA226-T(B) and SA227-TT: The maximum propeller shaft overspeed limit is 1686 RPM (106%) for 5 seconds and 1615 RPM (101.5%) for 5 minutes. 100% is defined as 1591 RPM.

(E) Model SA227-AT: The maximum propeller shaft overspeed limit is 1686 RPM (106%) for 5 seconds and 1615 RPM (101.5%) for 5 minutes. 100% is defined as 1591 RPM.

NOTE 5 (A) Increased gross weight applies to aircraft Serial Number T26-21 and subsequent. Aircraft with serial number less that T26-21 may be operated at the increased takeoff gross weight noted after modification in accordance with Swearingen Aircraft Service Bulletin No. 26-20, "A."

(B) All Model SA26-T aircraft may be operated at an increased landing weight of 9,300 lbs. after modification in accordance with Swearingen Aircraft Service Bulletin No. 26-61.

NOTE 6 For Model SA226-T, S/N T-220 and up and earlier serial numbers modified per Swearingen Service Bulletin 79-10-3026 and for Model SA226-AT, S/N AT-007 and up and earlier serial numbers modified per Swearingen Service Bulletin 79-10-4024, the oil capacity is reduced to 13.7 quarts total (3.6 quarts usable in each oil tank (+ 102 for Model SA226-T) (+ 205 for Model SA226-AT). Unusable oil is unchanged.

NOTE 7 Model SA226-T, SA226-AT, and SA226T(B) aircraft to be exported to France must comply with the additional equipment requirements listed on Swearingen drawing 27-13065, Revision C.

NOTE 8 Model SA226-AT is eligible for operation in the Restricted Category at 14,000 lbs. maximum takeoff gross weight when modified with structural beef-up and special purpose equipment per Swearingen drawing 27-13146 and operated in accordance with the basic Airplane Flight Manual and the Flight Manual Supplement applicable to the special purpose of patrol or aerial photography/survey missions. Some parts or all of the following CAR 3 paragraphs are inappropriate for the special purpose: CAR 3.0, 3.186, 3.190, 3.212, 3.242.

NOTE 9 Model SA226-T(B) is eligible for operation in the Restricted Category at 14,000 lbs. maximum takeoff gross weight when FAA approved special purpose equipment as required for patrol or aerial photography/survey missions is installed and aircraft operated in accordance with the basic Airplane Flight Manual and the Flight Manual Supplement applicable to the special purpose. Some parts or all of the following CAR 3 sections are inappropriate for the special purpose: CAR 3.0, 3.186, 3.190, 3.212, 3.242.

NOTE 10 Station J-J is station 36.278 inches on the Dowty Rotol (C) R321/4-82-F/8 propellers.

NOTE 11 *(See Note 14)* An "A" designation following the serial number signifies that the airplane is not eligible for SFAR 41 approval of weights greater than 12,500 lbs. Certification basis same as noted herein except omit SFAR 41 approval.

NOTE 12 If the certification basis specifies paragraph 4(b) of SFAR 41, the airworthiness certificate shall be endorsed "This airplane at weights in excess of 5,700 kg does not meet the airworthiness requirements of ICAO, as prescribed by Annex 8 of the Convention on International Civil Aviation," and the basic Airplane Flight Manual must contain FAA approved SFAR 41 data.

If the certification basis specifies paragraph 4(c) of SFAR 41, the airplane at weights in excess of 5,700 kg does meet the airworthiness requirements of ICAO, as prescribed by Annex 8 of the Convention on International Civil Aviation and the endorsement specified above should not be included on the airworthiness certificate. However, the Airplane Flight Manual must contain FAA approved SFAR 41 data.

NOTE 13 The increased ramp and takeoff gross weight applies to aircraft serial numbers AT511 and subsequent. Aircraft with serial numbers AT423 through AT506 may be operated at the increased ramp and takeoff gross weight noted after modification in accordance with Fairchild Swearingen Service Bulletin SB 11-001 revised December 11, 1981.

NOTE 14 Model SA227-TT aircraft, Serial Numbers TT421 and subsequent, are eligible for modification in accordance with Fairchild Swearingen Service Bulletin SB11-002 issued February 3, 1982.

If the aircraft is modified in accordance with SB11-002, paragraph IIA, remove FAA approved SFAR 41 Supplement Number One from the basic Airplane Flight Manual.

If the aircraft is modified in accordance with SB11-002, paragraph IIB or IIC, add FAA approved SFAR 41 Supplement Number One to the basic Airplane Flight Manual and limit number of seats to a maximum of 10.

NOTE 15 Exemption No. 961 no longer applies to SA226-T(B) airplanes and should not be listed on the airworthiness certificate.

NOTE 16 The Airworthiness Limitation Manual contains overhaul times, replacement times, and special inspections required for continued airworthiness.

NOTE 17 Airplanes with a 14,500 lbs. maximum takeoff weight can be modified for a 16,000 lbs. maximum gross takeoff weight if the modification is performed in accordance with ECP 437 "Compilation of changes 16,000 lbs. airplane" and a letter "B" is affixed at the end of the serial number on the data plate.

NOTE 18 Airplane for which the serial number on the data plate is followed by the letter "B" have ECP 437 changes incorporated and are eligible for a 16,000 lbs. maximum gross takeoff weight. These airplanes can be converted to a 14,500 lbs. maximum gross takeoff weight configuration if performed in accordance with FAC Drawing 27-13946.

NOTE 19 Airplanes modified in accordance with ECP 430 "Compilation of Changes - Fairchild 300."

.....END.....